# research

THAT MATTERS

6: A Fair Start

Equity and Excellence in

Early Childhood Education



### **Dear Colleagues:**

For a long time we've all known that we needed to do our respective parts to make an excellent early child hooded ucationa priority for all children. In 2006, Governor Chris Gregoire created Washington State's Department of Early Learning, and in the same year the public-private partnership Thrive By Five Washington was formed to support early learning initiatives. The development of a Bachelor of Arts degree in early childhood took almost a decade, but thanks to the persistence of a committed group of faculty from across the university and the leadership of UW Provost and Executive Vice President Phyllis M. Wise, we've finally succeeded. I'm happy to report that the University of Washington now offers an interdisciplinary undergraduate degree in Early Childhood and Family Studies, housedwithin the College of Education. And it is no coincidence that in the inaugural year of the degree Governor Gregoire was named the recipient of the College of Education's Distinguished Graduate Award.

The new program in Early Childhood and Family Studies is topical, on-target and timely.

Contemporary research shows that helping children early—even before kindergarten — can make a lifetime of difference. We also know that many young children aren't getting a quality early education. Thrive by Five Washington reports that less than half of our state's children begin kindergarten with the skills needed to succeed in school. Only 25 percent of the lowest-income students are kindergarten-ready. Early childhood educators are wrestling with the same question that challenges K-12 educators: How do we intervene early enough to make a real difference for children with special needs?

At the same time, demand is growing across the country to professionalize the early childhood education field — a field long characterized by low pay, high turnover and minimal credentials. More than two-thirds of the states in our nation currently have no specific training requirements for childcare teachers.

Our young children deserve highly qualified teachers. A growing number of studies suggest that increased knowledge among teachers may equate to more developed language and other cognitive skills for young students. This makes it imperative for us to think seriously about training and employing top-notch teachers and childcare leaders.

Federal agencies are already pushing to make it happen. The National Association for the Education of Young Children is phasing in more bachelor degrees for lead teachers, and Head Start is hoping to require that 50 percent of its teachers have bachelor degrees in the early childhood education field by 2013.

Our UW Early Childhood and Family Studies graduates will be ready, not only for classroom assignments but for high-level careers in early learning, child programming, family services, social/mental health services, nonprofit work and government planning. Thanks to the interdisciplinary nature of the program, they will also have a broad array of graduate school paths to pursue.

Contemporary research shows that helping children early — even before kindergarten — can make a lifetime of difference.

Faculty are as excited about our new degree as the students are. The Early Childhood and Family Studies program, which accepted its first students in winter quarter 2007, is bringing university partners together in fresh ways to capitalize on cutting-edge research. Students have access to a broad community of scholars interested in developmental support for young children and families, including experts in the fields of nursing, psychology, arts and social sciences, social work, neuroscience, pediatric medicine and dentistry.

All students in our new major will combine rigorous academic study with hands-on clinical fieldwork in diverse communities and challenging settings. This gives students exposure to the complicated problems of cultural, socio-economic, mental and physical diversity that characterize the 21st-century early childhood setting-problems investigated by the College of Education faculty featured in this year's "Research That Matters."

Inthefollowing pages, you'll meet College of Education faculty, some of whom have been involved with the development and delivery of the new under graduate program and some with ourelementaryteachereducationandspecialeducation programs. ers, and they are developing practical, evidence-based teaching strategies to meet the changing needs of early childhood centers and primary-grade classrooms. As researchers they study critical questions: How do preschool teachers deal with anincreaseinchallengingbehaviors?Howcaneducationaland other support systems better respond to immigrant families with children who have disabilities? How do we identify struggling young readers very early, before they experience failure? How do teachers help children with special needs in general education settings? How do we create classrooms that capitalize on children's early scientific curiosity? Despite the differences in focus, they all make a central point: Early instructional support helps children get on the right track, even before they enter traditional K-12 schools.

Our innovative researchers are expanding the definition of "school-ready" to include skills that aren't taken into account in most standardized tests — skills such as social-emotional competence and scientific ways of thinking. They're also working to find out what it will take to level a playing field where many young children arrive at kindergarten with early learning experiences that don't prepare them for kindergarten, or with disabilities that their teachers are not prepared to address.

We're making an investment in Washington's future here at the University with our exciting new undergraduate degree. Our Early Childhood and Family Studies program will give a new generation of early childhood education specialists the skills they need to ensure that all young children get the quality education they deserve, the education they will need in this new century. Parents and children trust us to make wise decisions on their behalf. If all of us, across the University and across the state, continue to work hard to make early learning a priority, we will warrant that trust.

Patricia a. Was Cuy Patricia A. Wasley, Dean and Professor





# EMOTIONAL LITERACY:

RETHINKINGPROBLEMBEHAVIORINPRESCHOOL







After detention and suspension comes expulsion, the last resort for educators and school administrators. Only when all else fails, do schools kick out the student who disrupts, destructs and defies. When we imagine such a scene, we rarely envision the expelled child as three years old. However, a recent survey shows that preschoolers are expelled at three times the rate of students in grades K-12.

## People can understand me

"There are 1,825 days between the day a child is born and the day she turns five and enters kindergarten. During that time, the child is learning to be a social being," says UW College of Education researcher Gail Joseph, who focuses on children's social-emotional development. "Children can learn to be aggressive, or they can learn more peaceful ways to inhabit the world." Preschools and childcare centers can be critical sites for that learning.

Across the country, early childhood educators and caregivers say behavior problems are the biggest challenge they face daily. Young children whine, spit, hit, scream and throw tantrums. Adults too often don't know what to do, have inappropriate expectations, or use ineffective practices. Early childhood educators have told Joseph that they feel frustrated,irritated, guilty and unable to do their job. Many quit, sick of maximum stress on minimum wages, thus adding to already high staff turnover in the field.

"Is there anyone in any profession who can go to work feeling that way and do a great job?" asks Joseph.

The assistant professor, who served as a mental health program specialist in the Washington, D.C. Head Start bureau, surveyed early childhood caregivers and educators to see how they dealt with challenging behavior. The top disciplinary method was the time-out, which, in its traditional form, isolates the child and doesn't expressly teach alternatives to the problem behavior.

Teachers in the survey resorted to time-outs almost twice as often as any other strategy. A few opted to deal with challenges by talking to parents, not kids. Some simply ignored bad behavior. At the very bottom of the go-to techniques were moreeffective options such as finding out why the child behaved thatway, changing the environment to increase childengagement or change their own behavior, such as by giving time and attentionto a child's positive vs. challenging behavior.

"That concerned me. It suggests that the most prevalent practices are the least effective," says Joseph. "There seems to be little focus on supporting, fostering and teaching children social-emotional skills."

Preschoolers need to be taught not only ABCs and 1-2-3s, but the basics of what Joseph terms "emotional literacy" — how to express feelings, talk to peers, exercise self-control and generate solutions to problems. Many troubled youngsters have a limited vocabulary of feeling words — "mad, happy, tired" and hold few positive strategies in their behavioral tool kits.

Studies show that early intervention can build these skills, giving preschoolers new strategies for problems olving. May be they learn to say, "OK, it was an accident," or make the fine distinction between "disappointed" and "sad." Maybe they learn to see problems through others' eyes or learn skills that help them stop and think before they act.

Joseph has studied some of the best social-emotional curricula on the market, evidence-based programs that use everything from puppetry to parent training to tackle anti-social behavior in preschool centers. The programs, she says, aren't being used as often, or as effectively as they could be. "There is this misleading thought that it need only be taught a couple days a week, and that's the time to focus. If you problem-solve and describe emotions only on Tuesday, that's not very effective when social-emotional issues arise every day," she says.

One barrier to widespread use of effective programs is accessibility. The programs can cost from hundreds to thousands of dollars — although some strategies are low-cost or free and can be downloaded from web sites (for example: www. vanderbilt.edu/csefel). Even if childcare centers adopt effective curricula, caregivers with limited background in early childhood education may be unsure how to use the programs. Only one-quarter of the states in the U.S. require any training for childcare teachers.



Another barrier is time. Early childhood educators are increasingly being asked to focus on more academically oriented curricula as the pressure of high-stakes testing drifts down to preschool. Parents may expect educators to prep kids for good test scores, not practice compassionate behavior.

"Tests measure what is easily measurable. Social-emotional development is not easily measurable, so it's often off the radar," says Joseph. "People say, 'We need our kids ready for kindergarten.' There is debate, however, about what getting ready for kindergarten looks like."

Teachers across the country say that about 20 percent of children enter kindergarten today with inadequate social and emotional skills. That bodes ill for those children's future. Evidence exists that children's social and emotional competence is integrally linked to their cognitive and academic competencies, manifested by their ability to learn and to be successful at school. Evidence also suggests that without intervention, emotional and behavioral problems in young children may be less amenable to intervention after age 8, resulting in an escalation of academic problems and challenging behavior.

In fact, early behavior problems in preschool are the single best predictor of delinquency in adolescence, substance abuse, gang membership and adult incarceration, according to multiple studies. That's a huge cost — to society and to the once-teachable child grown into an unreachable adult.

"We're in a pay-now or pay-later situation in terms of supporting social-emotional development," says Joseph, who developed a leadership program for early childcare administrators to examine the problem. In one workshop, she asked administrators to imagine what morning headlines would say if their biggest dream for early childhood education had been fulfilled. One answered, "Prisons to close."

"That says it all," concludes Joseph.

### FORMOREINFORMATIONABOUTJOSEPH'SMODELFORTEACHING SOCIAL-EMOTIONAL COMPETENCE, SEE:

Fox,L.,Dunlap,G.,Hemmeter,M.L.,Joseph,G.E.,&Strain,P.S. (2003). Theteachingpyramid:Amodelforsupportingsocialcompetenceand preventingchallengingbehaviorinyoungchildren. Young Children.

# THE TEACHING PYRAMID

Preparing young children for kindergarten means more than teaching beginning math and language skills. It means helping preschoolers master the social and emotional skills they need in order to work out problems on their own, exercise self-control, express their feelings, and have positive interactions with peers, caregivers and family.

One successful approach to building this "emotional literacy" in children is The Teaching Pyramid. The Pyramid, developed by early childhood researchers, including Dr. Gail Joseph from the UW College of Education, provides a framework to promote healthy social skills for all children. It lays out a hierarchy of strategies, each building on the last, with those at the lower level of the pyramid targeted to all or most of the students in a class and those at the top increasingly tailored for specific children.

Step 1: is developing positive relationships with children, family and colleagues. In a warm, safe, responsive childcare environment, a preschool teacher may individually greet children by name upon arrival, and talk about the day to come. She is committed to developing a strong, nurturing relationship with each child.

Step 2: is using effective practices to prevent behavior problems. These include giving children needed structure and positive feedback on pro-social behavior. It also means designing classroom arrangements — such as  $well-organized \, learning \, centers \, -- \, that \, minimize \, conflict \, and \,$ promote engagement and social interaction.

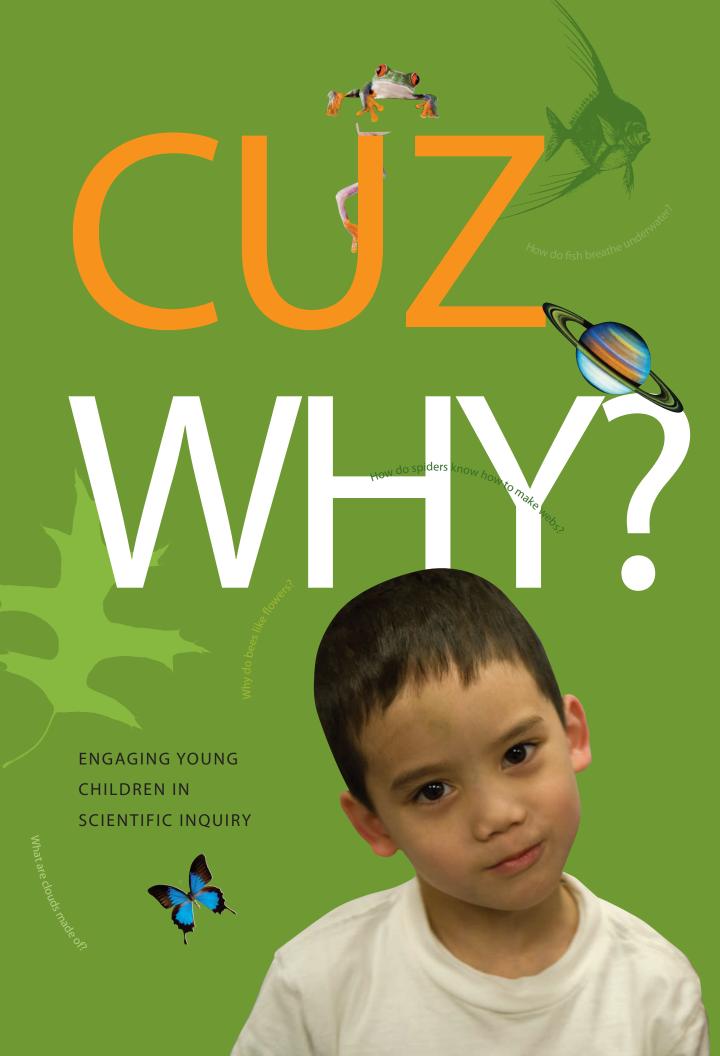
Step 3: is explicit teaching of social and emotional strategies. Some children will need focused instruction in skills such as controlling anger and impulse, problem-solving,  $making \, new friends \, and \, identifying feelings \, in \, themselves \, and \,$ others. Building their emotional vocabulary with words such as "excited," "tired" and "disappointed" can help them express these feelings.

Step 4: the fourth and last step is individual intervention. This may involve working one-on-one with a family and tailoring a behavior support plan to address a child's specific challenging behaviors. If the other steps of the pyramid are followed, researchers estimate only about 4 percent of children should require this most intensive level of individual support. By supporting each child at the necessary level, teachers can prevent many problem behaviors and betteraddress those that do arise.

Intensive Individualized Interventions

Social and Emotional **Teaching Strategies** 

Classroom Preventive Practices



Young children live and breathe science. Playing in the backyard, they stick their noses deep inside a flower, pick up an earthworm to study how it wriggles. They lie on the grass and stare at the sky, their heads full of questions. Why are some flowers smelly? How can worms move without legs? Why is the sky blue? How does a bird fly?

"I would argue that children really want to understand how the world works, and this starts very, very early," says developmentalpsychologist Leslie Rupert Herrenkohl, whose research at theCollege of Education focuses on designing educational environments that support children to deeply explore scientific ideas.

"First, children tell you about their physical world, then, by ages three to four, their descriptions move into questions," says the associate professor. "They ask 'Why' questions, then start offering some explanation. By the time they enter first grade, children are remarkably capable of explaining the world and developing theories about the way things work. "We too often forget the thread of young children's interest in explaining the world they live in, and that's the beginning form of science," says Herrenkohl.

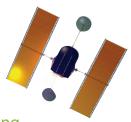
As a result, children's natural curiosities can go uninvestigated. One potential explanation for this lies in beliefs about young children's lack of ability for abstract reasoning.

"At one time it was common to believe that young children were solely concrete thinkers, unable to engage in the abstract thinking required to develop explanations. Multiple lines of research now demonstrate that this is not the case," says Herrenkohl.

Herrenkohl's own research examines how intentional classroom environments can help children develop habits of higher-level, scientific thinking. In a scientist, those habits include experimenting, hypothesizing, connecting, collaborating, offering proof, sharing and challenging peerideas, revising conclusions, defending ideas, capitalizing on mistakes. In a classroom of early learners, the habits may begin with a discussion of a project, and a teacher's simple questions: "What happened?""Then what?""What do you think?""How do you know?"These are questions the children will use to challenge one another as they learn to "talk science."

A child's fragmented version of science talk may not look like Isaac Newton's, and teachers may have to listen closely to see sophisticated inquiry processes at work. "Cuz why?" may be a demand for proof. "Gross, like slime," could be a  $carefulobser vation, comparison, and analogy. Reasoning \, may \,$ go forward, backward or sideways. One little boy Herrenkohl worked with said he knew why a shape was called an octagon: "Because it has eight sides. An octagon has eight sides and an octopus has eight arms."





### "We too often forget the thread of children's interest in explaining the world they live in, and that's the beginning form of science."

COLLEGE OF EDUCATION DEVELOPMENTAL PSYCHOLOGIST LESLIE RUPERT HERRENKOHL

Incollaboration with other teachers and researchers, Herrenkohl followed that boy and his fellow second-graders at a public science/technology magnet school in New England. The school, preschool to sixth grade, had a rich racial, ethnic and socioeconomic mix — important because minorities, second language learners and girls are historically less successful at science.

The team of researchers and teachers used Complex Instruction, an approach that focuses on higher-order thinking skills, to engage second-graders in collaborative scientific learning with hands-onactivities. One activity was balancing objects on a scale that allowed children to vary weight and distance from the scale's fulcrum. Although childrensometimes had difficulty verbalizing their understanding, they did come to recognize that both weight and distance mattered. As one young girl wrote in her science journal, "We learned in our grop thet it dose not have to be eqle to balice." Another child told the teacher, "See cuz if you put it over here it'll weigh more," pointing to the end of the balance scale.

Teachers introduced students to subject matter, then brainstormed questions. At the start of a construction project, kids asked, "How does a structure know its own weight?" and "Why does a structure fall down?" In small groups, building structures with straws and tape, the children developed and tested ideas, then found out what others thought and why they thought it. Encouraged by teachers, they clarified and built on one another's ideas, marshaling one another's strengths in their teamwork. Teachers pushed inquiry with questions such as, "Why do you think that happened?" and encouraged children to make connections between their school science explorations and their outside-of-school activities.

Trying to understand the difference between dissolution and disappearance, one boy explained that the antacid that he dropped in water wasn't gone — it was like a vitamin you swallowed that stayed in your body.

In "wrap-up," children discussed their work with the entire class. The children articulated ideas and defended them against challenges. Group sense-making led to individual understanding.

When one child wrote, "I learned that..." her classmate rephrased it to "We all learned that..." The learning worked both ways.

The second-graders in Herrenkohl's study went on to perform quite successfully in the science subtest of the first Massachusetts Assessment of Educational Progress Test, knowing science as a process, a way of thinking, an attitude of mind.

Such intensive teaching is a challenge for teachers. It requires time and energy at a time of increased curricular demands. "Elementary and preschool teachers are amazing human beings. We ask of them more than we ask of anyone else," says Herrenkohl. "They have to know every subject, then translate what they know into opportunities for young children to learn and understand."

Teachers in the early grades do much to shape children's lifelong views of learning and knowing. The curiosity of budding young scientists can be supported, even fueled, when the response to a question about how worms move is, "Let's watch some worms and find out!"

### MOREINFORMATIONABOUTHERRENKOHL'SRESEARCHCANBEFOUNDIN:

Reddy, M., Jacobs, P., McCrohon, C.& Herrenkohl, L.R. (1998). Creatingscientific communities in the elementary school: Perspectives from at each er-researcher collaboration. Portsmouth, NH: Heinemann. Herrenkohl, L.R., & Guerra, M.R. (1998). Participant structures, scientific discourse, and studentengagement infourth grade, Cognition and Instruction, 16, 433-475.

Palincsar, A.S., & Herrenkohl, L.R. (2002). Designing collaborative contexts. Theory Into Practice, 41, 26-32.

Herrenkohl, L.R. (2006). Intellectual Role-Taking: An Approach to Support Discussion in Heterogeneous Elementary Science Classes. Theory into Practice., 45, 47-54.







### Iwanteverychildwithautismorwithadisabilitytobeabletogotohis or her neighborhood school and get a world-class education."

COLLEGE OF EDUCATION PROFESSOR ILENE SCHWARTZ

How can public school teachers engage an autistic student in peer play if the child doesn't have the words or social skills to communicate? How can they teach both ABCs and self-control to a child who shakes and cries when a daily routine is changed?

These are no longer theoretical questions in the U.S. classroom. As the number of children diagnosed with Autistic Spectrum Disorder (ASD) booms and the push to include them in general education classrooms gathers momentum, the public school system is being tested in ways that were unimaginable only a few decades ago.

"Thirty years ago, when I chose special education work — or it chose me — the number of kids diagnosed with autism was three to five out of 10,000. Now it's one out of 150," says professor Ilene Schwartz, who chairs the special education department at the UW's College of Education. "When I first said"I worked with kids who were autistic, people would ask, 'Are those the kids who draw really well?' Now everyone knows what autism is."

Last year in Washington State, public schools served 6,025 children ages 3 to 21 with the neurodevelopmental disability we know as autism. In 1995, the number was less than 300. The cost of educating these students is considerable — about threetimes that for a typical student, depending on the support needs of the child diagnosed with ASD. Those needs vary greatly, as do the children's abilities and behaviors.

If you've met one child with autism, experts say, you've met one child with autism — and only one. A student with ASD may be a playground athlete with a sizable vocabulary, while his non-verbal classmate is barely to ilet trained and only blinks when someone throws him a ball.

One student may rock in a corner, avoiding eye contact, repeating two words in a monotone. Another may be quietly brilliant — master of the alphabet, a meticulous counter — but come unglued and burst into tears when papers are out of order or daily routines are changed.

All children with disabilities, including those with ASD, are guaranteed a free, appropriate, quality education by state and federal mandates. Unfortunately, many aren't getting it yet, says Schwartz, who is leading efforts to build practical, proven classroom procedures that can be exported to public school districts.

"I want every child with autism or with a disability to be able to go to his or her neighborhood school and get a world-class education. The question is, what do we need to do to ensure that happens?"

Schwartz is director of the Experimental Education Unit (EEU), an early childhood education center on the UW campus that was founded in 1960. The EEU now serves over 200 disabled and typically developing children, ranging in age from a few weeks to seven years old, in its integrated classrooms.

Studies show that children with ASD respond especially well to such early intervention — a significant finding as more children are diagnosed at increasingly earlier ages. While most children with ASD can be identified by 24 months of age, parents may begin noticing the signs much earlier: the baby doesn't point, doesn't respond to her name, doesn't cuddle or flinches from touch. "Often parents later report that these were the 'best' babies, because they were so quiet and didn't need tobe picked up all the time," says Schwartz.

Classrooms at the UW's Experimental Education Unit are inclusive, a mix of children with and without disabilities. Staff involvement is intense, and children receive individualized instruction. Special-education services, such as speech and occupational therapy, are integrated naturally into classroom activities, and family involvement and education are mandatory.

On a typical day, a classroom of fifteen students buzzes with activity as a half-dozen adults — teachers, assistants, teachers-in-training, therapists — read to children, help them form letters, guide them in social interactions. When one

"Wecan'tgotoeveryschooldistrict.Wedon'thavethepersonnelorthetime. What we try to do is help school districts develop their own expertise."

COLLEGE OF EDUCATION PROFESSOR ILENE SCHWARTZ

young girl with autism heads for the corner and folds her arms around herself, re-entering her own private world, the teacher joins her, finds a play toy, and starts a game. Slowly, the three-year-old girl joins in. Her nanny watches through a one-way window at the EEU. "She has become so much more talkative and social since she came here," says the nanny. "She's gaining confidence every day."

The EEU, funded by Seattle Public Schools and private donations, has evolved into a go-to center for researchers and educators around the country, and a training ground for future teachers, social workers, speech therapists and other early education providers. EEU staff and researchers have worked with school districts in more than half the United States, including at least 20 districts in Washington State. The demand for EEU expertise is tremendous. "We can't go to every school district. We don't have the personnel or the time," says Schwartz. "What we try to do is help school districts develop their own expertise."

One important model being developed for districts focuses specifically on children with autism. Schwartz and other projectleaders on Project DATA (Developmentally Appropriate Treatment for Autism) consulted with everyone from parents and teachers to school administrators and transportation providers to create a usable program that would be sustainable in the classroom.

Project DATA focuses on children ages three to six, with mild to severe autism. The children spend half their day in an inclusive EEU classroom. They also have an additional 20 hours of intensive separate intervention each week that targets the goals of their Individualized Education Program (or IEP) — the legislatively mandated plandeveloped by family and educators to meet a child's individual needs.

The combination of intense instruction and social interaction works on multiple levels. "What we know about children with autism is that we can take them in a small room and teach them a boatload of things," says Schwartz. "But that doesn't help the children at school, at Grandma's, at childcare, or at the dinner table. The learning, living, talking community — that's where I want each child to be successful."

The program includes technical and social support for families, with monthly home visits. Project DATA educators also coordinate with services such as home therapy and, when a child is ready to leave the program, they work with preschools and schools to make sure the child's transition is smooth. That can mean something as simple as learning how to carry a lunch tray, or meeting new teachers before the first day of school.

"Project DATA is a million little things done right every day to help this child succeed, and let me tell you, those things add up," said the parent of one participant.



Careful tracking of the children in the project shows that all have made gains. Most children increase their vocabulary, learn to follow directions, and the majority are toilet trained by the time they leave the program. Follow-up studies show more than 50 percent of the graduates make the transition into inclusive kindergarten placements.

The project has already been adapted by three districts in the Puget Sound area.

"It is one of the few early intervention models for children with ASD that was designed to be implemented in a public school setting," states Schwartz.

Despite the project's success, it raises some difficult questions.

Which child in the broad range of Autistic Spectrum Disorders benefits most from early intervention? The child with the high I.Q.? The child too shy to speak? "We don't know all the details yet," says Schwartz.

How many hours of early intervention are appropriate? Project DATA suggests at least 16 hours a week. The average in Washington State is three hours a week. Some parents, citing early research in the field, are demanding 40 hours a week or more. "We're still trying to figure out the magic number. How much does a child need for a meaningful outcome?" says Schwartz.

Finally, who pays for early intervention, and how? Washington State currently ranks 42nd out of 50 states in public funding for education. Formulas for special education funds are based on general education funds, so increasing funding for general education will increase funding for special education.

"These programs are not something that can be done on the cheap," says Schwartz, "and I don't want to try to do them on the cheap."

Having seen the results of these programs for children and families, Schwartz knows a good investment when she sees it.

### FORMOREINFORMATIONABOUTSCHWARTZ'SRESEARCHSEE:

Boulware G., Schwartz, I.S., Sandall, S.R., & McBride, B.J. (2006). Project DATA for toddlers: An inclusive approach to very young children with autism. Topics in Early Childhood Special Education, 26, 94-105.

Schwartz, I. S., Sandall, S. R., McBride, B. J., & Boulware G. (2004). Project DATA (Developmentally Appropriate Treatment for Autism): An inclusive school-based approach to educating children with autism. Topics in Early Childhood Education Special Education, 24, 156-168.



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INTEGRATING CHILDREN WITH
SPECIAL NEEDS INTO PRESCHOOL CLASSROOMS





For many preschool teachers, the challenges of attending to all of the children in their care seem magnified when they realize that their class includes several children with disabilities. How can a preschool teacher address each child's special needs and still provide a rich learning environment for the other children in the classroom who don't have disabilities? Isn't it someone else's responsibility — the speech therapist's, the behavioral specialist's — to ensure that the children with disabilities receive the attention they deserve?

UW researcher Susan Sandall, associate professor in special education at the College of Education, understands teachers' frustrations. "The preschool teacher may have fifteen children actively engaged in free-choice time, and suddenly someone painting at the easel needs more paint, and someone playing with tabletop toys sends the Legos flying and the teacher thinks, 'Oh, yeah. I'm also supposed to be helping this other child use prepositions in his language.'"

But individualized instruction for children with disabilities,

Sandall points out, does not have to mean interrupting regular classroom lessons for one-on-one instruction. When young children with disabilities arrive at preschool, they come with a plan. Forged by parents and early service providers, the federally-mandated Individual Education Program (or IEP) includes goals carefully tailored to the child's individual needs. With careful planning on the teacher's part, a child's IEP goals can be embedded in daily classroom activities.

Co-author of a book entitled Building Blocks for Teaching Preschoolers with Special Needs, Sandall has helped develop practical classroom solutions for meeting the needs of all students within the natural framework of inclusive classrooms — classrooms where children with developmental disabilities and other special needs work and play alongside typically developing peers.

A national survey shows that 70 percent of early childhood

programs include children with disabilities. Such integration can build empathy in children who don't have disabilities, and boost academic and social skills in the kids who do. "We're not sure why it works, but we have our hunches," says Sandall. "We think it may enhance motivation, because the children with disabilities are using real materials; it's a real classroom where there's a need to use skills in real situations and their peers are nearby."

However, simply placing children with disabilities in general education settings does not ensure success. In one study of inclusive primary classrooms, researchers found four out of twelve young children with special needs received no instruction on their IEP objectives. The other eight received instruction on less than half of their individualized goals. Children with special needs require more support.

"Children with disabilities almost by definition don't learn naturally, even in an engaging environment. They don't know what is important to pull from it," says Sandall. "We have to askwhattypicallydeveloping children are accomplishing, then find out how we can help the kids who aren't able to do that automatically."

The key is to find ways to meet a child's specialized needs

without significantly altering the nature of daily instruction and activities. The Building Blocks book shows how this embedded instruction works, using effective, evidence-based methods, team problem-solving, careful planning and intentional teaching to help all children meet their learning objectives.

Modifying classroom materials and settings is a first step. For a child with physical disabilities who can't hold onto crayons and markers, wrapping a layer of foam around these drawing supplies can aid her grasp and help her meet her goal of manipulating objects. Working with specialists, a teacher may decide to give a restless, fussy child a favorite stuffed toy to cuddle at the beginning of circle time. Slowly, he begins to settle down and participate in this socializing classroom routine. The barely verbal child with autism who always plays alone may boost his language and social skills by working alongside an assigned peer play buddy.

None of these modifications alters classroom routines.

More complex is the task of identifying classroom activities that provide specific learning opportunities for a child with disabilities and embedding short, repeatable teaching episodes within those activities. If a child's goal is to learn to label objects, this might mean naming items of clothing during a playground game of Simon Says, then repeating the names of colors during an art activity and listing names of foods during snack time.

To design such embedded learning opportunities, teachers



break down big goals — improving hand-eye coordination, learning to follow directions — into smaller steps and write specific tasks on a planning form: "Drew will demonstrate five new play skills during free-play on three different occasions for at least ten minutes." Record-keeping is essential.

Children with more severe disabilities need to have their learning monitored most closely. "They may not know what to do with a block or toy car. You have to teach them very directly," states Sandall. "Once they've mastered some of these foundational skills, you can expand on the skills in more general activities."

Studies show that we aving individualized instruction into daily activities makes it easier for preschool teachers to meet the diverse abilities of children within an inclusive classroom. But few preschool teachers receive the kind of training necessary to master these skills, nor do most get the support of specialeducation specialists. "Creating truly inclusive classrooms is more difficult than we thought it would be," says Sandall.

She is now working with colleagues to develop sustainable materials for early childhood educators that include multimedia toolkits, evaluation procedures, videos, coaching and follow-up strategies. The professional training materials are based on research that shows the effectiveness of embedded instruction, and the fact that it is rarely used consistently in inclusive classrooms.

"What we saw during observations is that a teacher may get

one to two planned practice times in, but it is hard to get fifteento twenty, and a child with cognitive disabilities may need that many more repetitions," says Sandall.

"Our goal is to provide preschool teachers with the skills they need in order to genuinely include all children in their classrooms."

### FORMOREINFORMATIONABOUTTHISMODELFORCLASSROOMPRACTICESEE:

Sandall, S.R., Schwartz, I.S., Joseph, G.E., Horn, E.M., Chou, H.-Y., Lieber, J., Odom, S.L., Woley, R. (2003). Building blocks for teaching preschoolers with special needs. (2nded.). Baltimore: Paul Brookes.





# BREAK-ING THE

### READING FLUENCY INSTRUCTION FOR STRUGGLING READERS

Two young children sit together, reading to each other as part of a buddy reading activity. The first child slides through sentences as she reads out loud. Many words are familiar: her, dress, play, yes. Unfamiliar words she automatically decodes, turning letters into sounds, sounds into words, words into meaning: "yes-ter-day." She never thinks about the complex set of skills she is using. All of her literacy experiences at home, preschool, and kindergarten are falling nicely into place. This is fun, a riddle. Caught up in the story, she brings the page to life through changes in the pitch of her voice and phrasing, pausing for punctuation. Her reading appears effortless and fluent.

The second child struggles with the text, gets stuck, looks to her buddy for help. So many words are new, unknown. She tries to break them into the parts she has practiced — individual letters and their individual sounds, longer letter strings that have predictable sounds (eed, ack, ing) — but she has trouble going from the parts to the whole words and then to meaning. Her reading is slow, laborious, disconnected from content. She reads in a monotone, without expression, using awkward phrasings. She may interpret words incorrectly, go over them several times, or skip them entirely and misread the author's message.

For her, reading is not fun, it's hard work.

"The effort can be exhausting," says UW College of Education researcher Roxanne Hudson, an assistant professor in special education who studies the complex layers of learning involved in young children's reading fluency.



Hudson knows the topic first-hand, as a special-education teacher, a volunteer tutor and now as a researcher working with struggling, non-fluent readers. She witnesses the effort these children put into a task that can appear so effortless for fluent readers, and she knows how tempting it is for struggling readers to abandon that effort after the third or fourth try. "I think it is important for us to acknowledge that kids with reading problems work really hard," says Hudson. "They stay motivated, engaged in things that are very, very difficult for them and continue doing so day after day."

Reading fluency is often defined as reading accurately at a conversational rate with good expression. Fluency reflects the culmination of a child's prior literacy experiences, but it also relates to future skill. An influential 2000 study by the National Reading Panel showed that fluency was strongly correlated withreadingcomprehensionalthoughwhetherfluencyleads to comprehension or comprehension leads to fluency is unclear. Understanding the meaning of a paragraph will help a child read that paragraph more fluently, but when reading is slow and effortful, it is nearly impossible to understand what is being read. This strong relationship between fluency and comprehension has many researchers arguing that fluency instruction is too often neglected in the early elementary classroom.

That's beginning to change across the country as educators and administrators — faced with statistics that show more than half of America's fourth-graders don't read at proficient levels — focus on integrating reading fluency into early-learning assessment and instruction. Fluency is not something all children develop on their own, and silent independent reading is not enough. "Independent reading practice will not help all struggling readers gain fluency," says Hudson. "They need directinstruction influency and many opportunities to practice reading text at the right level with adult support." Researchers recommend that preschool and kindergarten teachers model fluentreading extensively and primary teachers provide corrective feedback as students give regular, repeated or al readings of familiar text.

Hudson's focus is early intervention. Kindergartners who have trouble naming letters and orally breaking words into sounds have increasing problems with reading as they move on, unable to build on these basic skills, unable to "grow out of it."

"What if we can intervene early," asks Hudson, "and keep most of these readers from developing a reading disability?"



Hudson is wrapping up Project WORD, a three-year research project. The first two years, she studied a wide range of readers in first through third grade to discover what skills and knowledge were important for proficient, fluent reading. "I wanted to learn what foundational skills really seemed to matter in early reading—meaning that if children had them, they were fluent, and when they didn't, they weren't," says Hudson. She then used the information gained from these studies to develop an intervention designed to increase children's fluency in these foundational areas — segmenting and blending of individual sounds within words, the sounds associated with individual letters and the longer letter strings that repeat across words.

In this third and last year, she is working with personnel in several Puget Sound schools and similar schools in Florida to test the intervention with second grade students who score in the lower third in oral reading fluency and are struggling in school. She chose this grade level for Project WORD because it is a critical age in learning to read fluently, when previously acquired skills should be coming together. Hudson's collaborators include Holly Lane, University of Florida, and Joseph Torgesen of the Florida Center for Reading Research at Florida State University. Torgesen's studies show intervention with focused instruction inkindergartencan produce fluentreaders, but such intervention with third-graders has limited results:

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COLLEGE OF EDUCATION ASSISTANT PROFESSOR ROXANNE HUDSON

While it improved the third-graders' reading accuracy to gradelevel, their fluency still lagged behind their peers.

"What that says is that we need to do more, and do it sooner," concludes Hudson.

Early, accurate assessment is critical to diagnosing reading problems. While most state accountability tests can determine whether a child is a good reader or a poor reader, they can't tell why, or where problems occur. "In order to manage the higher level skills and be fluent, children need to master the lower level processes that develop early, and teachers have to identify where those lower level processes aren't working," says Hudson.

One of the most effective tools for identifying fluency problems is timed oral reading. As individual students read selected passages across multiple occasions, teachers monitor words, read correctly and identify where problems occur. Is the problem with mapping letters to sounds? Blending sounds together to form recognizable words? In the number of words they can read instantly or by sight? In how they phrase what they read or represent meaning in what they read? All of these skills must be coordinated.

Important in developing children's reading fluency is choosing appropriate materials in which they can practice their reading skills with some success. Children need to read text at the level just right for them. Too often, children are asked to read text that is too difficult. "We shouldn't have children read a text unless they can correctly read at least 90 percent of the words," says Hudson. "We don't want them to read at their frustration level. It teaches them reading is not supposed to make sense, it's just figuring out the words."

Too many students get stuck at the "figuring out" stage, and the long-term results are sobering. Because reading is so laborious and they barely understand what they read, nonfluent readers often fail to complete school work, lose interest in school, and show little inclination to read for pleasure. The problem snowballs with each year, as texts become more difficult to decode, and slow reading turns one hour of homework into four.

"Children with reading fluency problems often get identified as having a reading disability, they tend to be unsuccessful in content area classes because they can't read the textbook and eventually they can have motivational and behavioral problems," says Hudson.

Can early research-based fluency instruction break this cycle? Hudson has witnessed what happens when instruction is effective. One of the second-grade students she worked with refused to sound out words or try to make meaning as she read aloud. She just looked for words she knew in the text and skipped the rest.

The text began: "Six years ago, my family grew from two people to four people in one day."

The little girl read aloud: "...my...two...in..."

Hudson and her UW graduate students worked with the girl on recognizing the sounds of letters, practicing them until she was fluent and making her pay attention to every one on a page. They also worked on helping her decode word families with those same sounds, showing her how to sound out each letter and then blend them into words. The sentences started filling in.

One teacher finally stopped Hudson in the hall and asked, "What are you doing with her? I can't believe how well she is reading."

It was, says Hudson, a moment to savor.

### MOREINFORMATIONABOUTHUDSON'SRESEARCHCANBEFOUNDIN:

Hudson, R. F., Lane, H. B., & Pullen, P. C. (2005). Reading fluency assessment and instruction: What, why, and how? The Reading Teacher, 58, 702-714.

Also, see Hudson's website: www.fluentreader.org.



THE PREDICAMENT OF MULTILINGUAL IMMIGRANT PARENTS WITH A

Families immigrating to America pack along their culture, religious beliefs, values and languages, often holding dearly to them in their new homeland. If they learn their child has a developmental disability, they may filter the information through this cultural lens. Questions can take a thousand turns.

Did something the mother ate affect the baby?

Is the father paying for an ancestor's bad deeds in a past life?

Did skipping prayers invoke the anger of the Gods?

Did Allah honor their family with the gift of this special child?



### SPECIAL CHILD

Doing right by a child with special needs may be doing right by heaven, but that job is doubly difficult for immigrants, points out UW researcher Brinda Jegatheesan, whose pioneering studies focus on South and East Asian immigrant families with young children with autism.

Speaking in a second or third language — or working through a translator — the families must try to navigate a bewildering system of doctors, schools, therapists and specialists who may not understand their culture, family structure, or concerns. One expert may insist the family set "independence" as an objective for their 5-year-old with developmental disabilities, when it is not a goal they value. A doctor may want to deal only with the mother and father, when aunts and uncles and grandparents are invested in the daily care of the child and insist there's nothing wrong with the child — just with the parents. And aren't parents supposed to respect the wishes of elders, the extended families ask.

"We have to widen the circle, educate the entire extended family in many cases," says Jegatheesan.

Federal mandates require that these children receive culturally sensitive and appropriate services, and that their families get support and training. That, in turn, requires a deep understanding of the backgrounds and belief systems of these families, and that's not happening with sufficient frequency, says the assistant professor in educational psychology and Early Childhood and Family Studies in the College of Education.

"Take policies and practices based 99.9 percent on knowledge of Western European cultures and apply them to a whole group of immigrants who come from a wide range of belief systems, treatment systems and languages, and you get a complete mismatch for intervention," she says.

Jegatheesan cites troubling statistics. An estimated six million children under the age of 18 in the United States who are from culturally and linguistically diverse backgrounds have a communication disorder, such as autism. Yet almost all research done on families with autism is limited to European-American families, and most are done in clinics and lab settings.

The UW researcher broke the mold, taking her work into the homes and communities of immigrant families. The research was demanding, often personal, and endlessly tangled by cultural subtleties and family mistrust of outsiders.

Working with Muslim families in the Midwest, Jegatheesan sometimes had to wear a head veil, cover her body with loose garments, and avoid eye contact with men. Although she carried a notebook for data collection, she couldn't write while in the middle of conversations. It was considered impolite. Instead of asking direct questions, she learned to listen for answers in the telling of folk stories, myths, tales of the past.

Asian families she contacted for studies in the Seattle area were often reluctant to participate. Some recalled bad experiences with prior researchers who'd offered some financial compensation, conducted their study, then cut connections with the family, without bothering to answer follow-up questions about where to find a speech therapist or whether an experimental program might work for their child.

"The families' opinion is, 'If I helped you with your research, why can't you help me with information?' It's give-and-take," says Jegatheesan.

The immigrant families with whom she worked often operated on inaccurate information. One family told her that Homeland Security would take away their green cards if agents discovered they had a child with a disability. Many were uncomfortable and mistrustful of Jegatheesan's young graduate students at the UW. If they were going to share intimate family details and experiences, they wanted to talk to an adult with life experience.

Jegatheesan spent months gaining the trust of the families, sometimes turning to community workers as liaisons to convey the message she wasn't a gone-tomorrow researcher, but insteadwassomeonecommitted to bringing change to the child's situation. "With immigrant families, you have to have their welfare foremost in your research. This work is all about relationship building," says Jegatheesan, who still fields 2:00 a.m. calls for information from families she worked with years ago.

A Singaporean Indian by nationality, Jegatheesan is uniquely suited to the task. She is fluent in six languages and has taught regular and special education classes in Singapore, India and the U.S.

Jegatheesan has great compassion for the low-income immigrant families who work with her. Some are so overwhelmed by the expenses and complications of caring for a child with autism that they stop seeking assistance. One Asian family she met couldn't afford a wheel chair for their child and didn't know how to go about asking for one, so they carried their child to and from the school bus stop every day. "The low-income immigrant families don't have the tools to be advocates. They don't know how to be proactive for their child," she says.

Even strong immigrant advocates struggle with the system. Many in Jegatheesan's studies were offended by doctors and therapists who made what the families perceived as negative comments about their child. When professionals said their child's problem was "untreatable" or "lifelong," parents suspected them of giving up on the child. Many families felt it was their religious duty to fully include the child in social, cultural, religious traditions, raise him as normally as possible, and hold high expectations.

One mother told Jegatheesan: "Why do they have to say he cannot do this, he cannot be this way or that way? That's what is bothering all of us."

"Howcanyoureallyhelpwithoutunderstanding the cultural and religious backgrounds of these families?"

Such problems with professionals can ripple into the classroom. Jegatheesan's education students at the UW have complained that some immigrant families can be "difficult" to work with. She explains the families' trials: the fear of knowing something's wrong with your child, the difficulty communicating those fears in a non-native language, the delays in diagnosis and care caused by miscommunication. "The parents come to preschool and there's this wonderful teacher, and she wants to do right by them, understand their culture, but they'vehad this terrible time with professionals in the past. They sometimes think, 'Why would I even think she is any different than the rest?"

It becomes the teacher's job to repair the damage done, and the teacher may have no inkling of how to bridge the cultural chasms. Those divides can be deep. Some therapists in Jegatheesan's studies advised families that their children with autism should "stick to English" at home — speaking one language was hard enough. But Jegathees ans a with a tchildrenwithautism often thrived in multilingual households, speaking Urdu with elders, reciting prayers in Arabic, using English with cousins. "The therapists said parents were 'creating chaos' in a child's mind by switching languages," she says, "but these children navigated three or more languages with ease."

Much of what she witnessed flew in the face of therapists' recommendations. Western therapists often advise parents to create a quiet, regulated environment for children diagnosed with Autistic Spectrum Disorder. Jegatheesan's field notes described houses jammed with friends and relatives, each voice vying to top the other, usually in multiple languages. Radios and TVs were on full blast, and children ran through the rooms and engaged in noisy play — with the child with autism often in the center of activity.

This might be the same child who sat quietly every day in his school room, speaking only a few shy words of English. "I found these children were able to do well in two settings, as though they recognized, 'I can be this way at home, this way at school.' In that way they are gifted, even if they have severe autism," says Jegatheesan.

The need to acculturate Western research, professional services and education to diverse perspectives is urgent, she says. The immigrant population in America has more than doubled in the past decade, and immigrant offspring are the fastestgrowing percentage of the nation's child population.

As their numbers soar, so does the demand for disability services. California, with one of the largest immigrant waves, reported a 634 percent increase in autism cases from 1987 to 2002, and 47 percent of the cases were ethnic minorities.

The problem is not going away.

"How can you really help without understanding the cultural and religious backgrounds of these families?" asks Jegatheesan. "It's time to stretch beyond our comfort zones, diversify our knowledge base, and discard our cultural biases."

### FORMOREINFORMATIONABOUTJEGATHEESAN'SRESEARCHSEE:

Jegatheesan, B. (2008). Muslim children with autism learn to pray. In R. A. Shweder, T. Bidell, A. Dailey, S. Dixon, P. J. Miller, & J. Modell (Eds.), The Chicago Companion to the Child. Chicago: University of the Chicago Companion to the Child. Chicago: University of the Chicago Companion to the Child. Chicago: University of the Child. ChiChicago Press.



EQUITY AND EXCELLENCE
IN EARLY CHILDHOOD
EDUCATION

TAKEAWAL

TIPS

Build children's emotional vocabulary by labeling your own feelings, their feelings as they experience them, and the feelings of characters in stories or on television.

Develop a community of social support for children with autism or other special needs, including peers, neighbors, friends, and family.

Embrace spontaneous science; find science in everyday activities and explore children's thinking about these unexpected moments.

Read with children, allowing them to revisit favorite books often and read them aloud.

Improve communication by respecting families' languages and their religious and cultural beliefs.

### **Contributing Faculty**



**LESLIE RUPERT HERRENKOHL**Associate Professor
Educational Psychology



**ROXANNE HUDSON**Assistant Professor
Special Education



BRINDA JEGATHEESAN

Assistant Professor
Educational Psychology and Early Childhood and Family Studies



**GAIL JOSEPH**Assistant Professor
Educational Psychology and Early Childhood and Family Studies



SUSAN SANDALL
Associate Professor
Special Education and Early Childhood and Family Studies



ILENE S. SCHWARTZ

Chair and Professor, Special Education
Director, Experimental Education Unit

### **UW College of Education Faculty**

Horn, Ilana

Abbott, Robert D. Antony, James Banks, James A. Beadie, Nancy E. Bell, Philip

Berninger, Virginia W. Bransford, John Brown, Sharan Cheney, Doug Cohen, Marilyn A. Contreras, Frances Copland, Michael Davis, Carol Elfers, Ann Frederiksen, John Frey, Karin S. Gallucci, Chrysan

Gay, Geneva

Gehrke, Nathalie

Honig, Meredith

Ginsberg, Margery

Herrenkohl, Leslie Rupert

Hudson, Roxanne Hune, Shirley Jegatheesan, Brinda Jenkins, Joseph R. Jones, Diane Carlson Jones, Janine Joseph, Gail Kazemi, Elham Kerdeman, Deborah Kerr, Stephen T. Kimball, Kathy Klockars, Alan J. Knapp, Michael S. Li, Min Lott, Joe Mazza, James McCutchen, Deborah E. McEwen, Doris McDiarmid, Bill

McDonald, Morva

Neel, Richard S.

Nerad, Maresi

Nolen, Susan B. Olswang, Steven Parker, Walter C. Peck, Charles Plecki, Marge Portin, Brad Roza, Marguerite Sandall, Susan Schwartz, llene Soder, Roger Stevens, Reed Stritikus, Tom Taylor, Catherine S. Taylor, Ed Valencia, Sheila Varghese, Manka

Wasley, Patricia

West, Elizabeth

White, Owen R.

Williamson, Joy

Zumeta, William

Windschitl, Mark A.

**Directors of Affiliated Centers** Sheryl Burgstahler Stephen Fink Rosemary Sheffield

College of Education University of Washington

Box 353600, Seattle, WA 98195 Phone: 206.616.4805 edudev@u.washington.edu education.washington.edu

EDITOR: Deborah McCutchen WRITER: Mary Lynn Lyke COORDINATOR: Mairead Reinhard DESIGN: Jo-Ann Sire & John Linse



UNIVERSITY of WASHINGTON

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